

CLAIMS

What is claimed is:

- 5 1. A method of inhibiting angiogenesis in a patient comprising,
- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof, wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
- 10 b) inhibiting generation of blood vessels into a tissue or organ.
2. A method of inhibiting angiogenesis in a tumor of a patient, comprising
- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof,
- 15 wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
- b) inhibiting generation of blood vessels into said tumor.
3. A method of monitoring an angiogenesis-mediated disease or condition in
- 20 a patient comprising measuring an amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from said patient in which an increase in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease
- 25 progression.
4. The method of claim 3 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or
- 30 derivatives, or analogs thereof, to said antibody.
5. A method of monitoring an angiogenesis-mediated disease or condition in a patient comprising measuring an amount of said endorepellin protein, its

5 fragments or derivatives, or analogs thereof, in a sample from said patient in which a decrease in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease regression.

10 6. The method of claim 5 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or derivatives, or analogs thereof, to said antibody.

15 7. A method of treating a tumor in a patient, comprising
a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
b) inhibiting angiogenesis in said tumor; and
c) inducing regression of said tumor.

20 8. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising
a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
b) inhibiting angiogenesis in said patient; and
c) inducing regression of said angiogenesis-mediated disease or
25 condition.

30 9. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising
a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
b) discontinuing said conventional therapeutic regimen;

- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said patient; and
- 5 e) inducing regression of said angiogenesis-mediated disease or condition.

10 **10.** The method of claim 9 wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

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11. A method of treating a tumor in a patient, comprising

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- 15 b) discontinuing said conventional therapeutic regimen;
- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said tumor in said patient;
- 20 e) extending dormancy of metastases and inhibition of tumor growth; and
- f) inducing regression of said tumor.

25 **12.** The method of claim 11 wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

30 **13.** A diagnostic kit for the detection or measurement of endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from a patient, comprising in at least one container an antibody that specifically reacts with a said endorepellin protein, its fragments or derivatives, or analogs thereof in said patient sample.

14. The diagnostic kit of claim 11 wherein said antibody is detectably labeled with at least one of a radiolabelled molecule, a fluorescent molecule, a chemiluminesor, an enzyme substrate or cofactor, or magnetic particles.
- 5 15. A pharmaceutical composition, comprising an endorepellin protein, its fragments or derivatives, or analogs thereof, and a pharmaceutically acceptable carrier or excipient.

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